



Borough of Folkestone

REPORT

ON THE

Sanitary Condition of Folkestone, DURING THE YEAR 1897,

BY

M. G. YUNGE BATEMAN,

M.R.C.S., L.S.A., D.P.H. (CANTAB.)

MEDICAL OFFICER OF HEALTH,

To which are appended the Annual Reports of the
Buildings Inspector and Sanitary Inspector for the
Year 1897.

FOLKESTONE :

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1898.



BOROUGH OF FOLKESTONE.

REPORT.

To the Town Council of the Borough of Folkestone.

(COPY.)

15, CASTLE HILL AVENUE,

FOLKESTONE,

January 23rd, 1898.

Gentlemen,

I have the honor to report for your information that during the year ending December 31st, 1897, 667 births and 423 deaths were registered, giving a birth rate of 24·1, and a gross death rate of 15·1 per 1000 in an estimated permanent population of 27,600. Forty-two deaths are returned among persons not belonging to the district, and nineteen occurred outside the district among persons belonging thereto. The corrected death

rate is therefore 14·4 per 1,000 for the permanent population.

The area of the Borough is 2481 acres, giving a density of population of 11·1 persons per acre.

The following Table shows the Birth and Death rates for the last ten years.

	Birth Rate.	Death Rate.
1888	26·7	13·1
1889	26·1	13·8
1890	25·0	13·8
1891	26·0	13·3
1892	25·5	15·1
1893	23·0	14·6
1894	24·1	12·4
1895	24·7	13·7
1896	23·9	12·0
1897	24·1	14·4

There were 48 deaths due to the seven principal Zymotic diseases. The two deaths from Scarlet Fever occurred in two visitors who con-

tracted the disease outside the district. One death from Typhoid fever occurred in a patient who contracted the disease in Maidstone, and was brought home suffering therefrom. The Zymotic death rate has been corrected for these three deaths.

The following Table shows the deaths due to the seven principal Zymotic diseases since 1890.

		1890	1891	1892	1893	1894	1895	1896	1897
Small Pox	...	0	0	0	0	0	0	0	0
Measles	...	6	0	0	26	1	2	23	1
Diphtheria, including Membranous Croup		0	5	13	28	47	7	7	8
Whooping Cough	...	10	2	3	0	1	3	1	2
"Fever" {	Typhus	...	0	0	0	0	0	0	0
	Simple, continued	...	0	0	0	0	0	0	0
	Typhoid Fever	...	4	2	0	2	0	4	4
	Diarrhœa	...	3	4	14	20	3	23	31
Scarlet Fever	...	1	0	6	3	0	1	1	2
Total	...	24	13	36	77	54	36	45	48

This gives the Zymotic death rate for those years as follows :—

1890	...	...	1·0
1891	...	...	0·5
1892	...	...	1·4
1893	...	...	3·0
1894	...	...	2·0
1895	...	...	1·3
1896	...	...	1·6
1897	...	...	1·6

The Infant Mortality rate, based on the number of children, under one year, dying out

of those born during the year, recorded per 1000, is 151.

1892	...	...	127·7
1893	...	...	168·9
1894	...	...	105·9
1895	...	...	150·0
1896	...	...	122·0
1897	...	..	151·0

The total number of children dying under 1 year of age is 101. Of this total 14 deaths were births registered as premature

Phthisis.—There were 52 deaths due to this disease, 17 being under the age of 5 years and 35 over that age. This gives a phthisis death rate of 1·8 per 1000 of the permanent population.

Diarrhœa.—This disease was very prevalent during the summer months. During the first half of the year one death, an infant, occurred. Between the months of July and October there were 29. Of this number 22 were infants under the age of 1 year, at which period of life Diarrhœa is especially fatal, and is the chief cause of the increase in the Infant Mortality and Zymotic death rates this year.

This disease amongst infants is caused by an insanitary condition of their surroundings.

The majority of the children were bottle fed babies, and milk exposed as is often the case in the houses of the poor soon becomes polluted. The condition of the backyards in some of the houses in which cases occurred would readily account for this. The remedy lies in properly paving with impervious material those yards which are either unpaved or in which the paving is defective, and insisting on the use of properly constructed

dustbins. This will prevent the pollution, by animal and vegetable matter, of the soil in the immediate surrounding of dwellings, a condition favourable to the development of any Zymotic disease.

Diphtheria.—There were 125 notifications of the disease during the year, 7 cases proved fatal, which gives a case mortality of 5·6 %.

The distribution of the cases in the different quarters was as follows :—

		CASES		DEATHS
1st quarter	...	17	...	3
2nd	„	27	...	0
3rd	„	39	...	2
4th	„	42	...	2
		<hr/>		<hr/>
		125		7
		<hr/>		<hr/>

During the first quarter all the cases occurred in the North and East Wards, with the exception of children from a private school in the west ward, who were infected by a child suffering with nasal diphtheria which had not been recognised, and the child had brought back the infection after the holidays.

Nearly half the cases occurring in the 2nd and 3rd quarters were caused by an outbreak at one of the elementary schools. This epidemic began in the middle of June and lasted till the holidays at the end of July; it was due to infection of children by two cases that had not been recognised, and were only found out when a house to house inspection was made. The cases were generally of a mild character, only one from that epidemic proving fatal. The school was disinfected and certain improvements carried out in the ventilation, and no cases have been reported from there since.

In September there were two groups of cases caused by the infection being imported, one by a visitor, the other by a child returning to school in the same condition, *i.e.*, nasal diphtheria after the holidays, as in the instance stated above.

In the last quarter the chief incidence was again in the North and East wards. In many cases insanitary conditions were found to exist at the houses of the patients, and although some occurred amongst scholars at the various elementary schools, I could find no evidence of the dissemination being caused by school influence. The remark I have made on the causes likely to favour the incidence of Diarrhœa hold good also with Diphtheria, and by carrying out the recommendations before made I feel sure the health of the town will be much benefited.

Typhoid Fever.—There have been 40 notifications of this disease. With the exception of one case reported in January, no cases occurred until March, when an outbreak arose, distributed over that month and April, giving rise to 5 cases. These were all supplied by a dairy, outside the Borough, which had caused the trouble in the previous winter. Steps were taken under Section 4 of the Infectious Disease Prevention Act, and the water at one of the cow keepers premises was found polluted, the supply of milk was suspended until the tank had been cleaned out. No further cases occurred, with the exception of a case imported from the continent in May, until September. During this month 6 cases were reported; three of these were persons who returned to the town from Maidstone, where the disease was prevalent, already ill with it; a fourth was due to infection from a patient who had been sent down convalescing from typhoid, and who was the cause of

two further cases. A fifth case was due to drinking polluted well water, which was proved by two subsequent cases arising from the same cause. In the sixth case no definite cause could be found.

In October, 11 cases occurred, 4 of these were imported, another case came from an already infected house, and of the remaining six, one was found not to be typhoid, in four no cause could be found, the remaining one together with five others that occurred in November, was due to infection from the same milk supply, that gave us trouble in the spring. On inquiry, a case of typhoid was found to have occurred in one of the men employed at the dairy. Proceedings were at once taken as before, and it was found that the same cowkeeper had been using water from a well which received the surface water from a lane into which drained the washings from two cottages in close proximity. The milk was at once stopped and has not been sold in the Borough since, the cowkeeper having sold his cows. Another case occurred in a family who had recently arrived in the Town from the hamlet in which this dairy is situated, and from which it had obtained the milk. Of the five that occurred in November, three were in already infected houses. Of five cases notified in December, one was imported from Camborne, one was from the family just mentioned, two unfortunately occurred in parents recently discharged from the Sanatorium, and for the fifth no definite cause could be found.

Scarlet Fever.—There were 43 notifications of this disease two of which proved fatal. Both fatal cases occurred in children who arrived, ill with the disease, from outside the Borough. All the others were very mild cases, and to this cause the number of cases is attributable, for it was not until the peeling stage began that the true nature

of this disease was disclosed. The distribution of the cases occurred as under :

1st quarter ...	...	...	12
2nd „ ...	...	...	7
3rd „ ...	...	...	12
4th „ ...	...	...	12
			<hr/>
			43
			<hr/>
			Total

Of this number 5 were imported cases.

INFECTIOUS HOSPITALS.

Small-Pox Hospital.—There have been no admissions this year.

Sanatorium.—The admissions to this hospital during the year were 125 :

Scarlet Fever ...	..	25
Diphtheria ...	...	79
Typhoid ...	...	10
Suspicious Throats	...	7
Doubtful Scarlet Fever	...	3
Doubtful Typhoid ...	...	1
		<hr/>
		125
		<hr/>
		Total

Death :—

Diphtheria ...	...	4
Typhoid Fever ...	..	1
		<hr/>
		5
		<hr/>
		Total

Under Treatment December, 31st 1897. :—

Scarlet Fever ...	...	4
Typhoid Fever ...	...	3
Diphtheria ...	...	2
Suspicious Throat ...	...	1
		<hr/>
		10
		<hr/>
		Total

Extension of Sanatorium.—I am pleased to be able to report that the new ward block, administrative block, laundry buildings, and disinfecting house are fast approaching completion, and I hope will be opened early this summer. The necessity for this extension will be readily seen by referring to the list of diseases, now being treated under one block in the present buildings. In the future at least two diseases will be able to be properly treated with complete isolation one from the other, and there will now be no liability of patients, admitted with one disease, contracting another as has been the case in the past. Accommodation also will be afforded for a larger number of nurses, which was not possible before, on account of want of room. It is also absolutely necessary that an isolation block of two wards, at least, should be provided for the quarantine of doubtful cases. This year alone there were 10 such cases, and in two instances, children admitted for one disease eventually were found to be suffering from another.

Also two cases of scarlet fever developed Typhoid whilst still in the Sanatorium, and another case as also one of Diphtheria within 10 days after their discharge.

Water Supply.—During August and September complaints were received of the taste and odour of the water supplied by the Waterworks Company, and during the later months of the colour which was sometimes of a deep chocolate brown. Analyses of samples taken showed contamination with vegetable matter upon which I have already reported. I am of opinion that more efficient filtration is required, and I would recommend sand filtration in addition to the gravel that is used at present. The discolouration appears to be due to oxide of iron, evidenced by the examination of the deposit.

Other Water Supplies.—Samples of water from three shallow wells within the Borough have been taken and analysed. In each case the water was condemned on account of pollution by sewage matter. Two wells were closed and the public supply laid on, in the third the water was allowed to be used for stable use only and not for domestic purposes. I would recommend constant watch be kept on the shallow wells of which there are still a number in the town and that frequent analyses be made.

Samples of water from the Bull-dog springs and the Town Dyke were also analysed, and found to be polluted by organic matter and sewage. Notices have been issued warning the public against the use of these waters for domestic purposes.

A sample taken from the source of the Town Dyke was found to be satisfactory. I advised that this water be conveyed in iron pipes instead of the open channel in which it runs.

Public Sewers, etc.—In 1896, I, in conjunction with the Borough Surveyor inspected and reported upon the drainage of Shorncliffe Station and the houses adjoining known as Coolinge Villas, all of which drained into cesspools. The station buildings have now been connected with the sewer, but so far the other houses remain in the same condition as they were before.

Slaughter Houses.—I would again draw your attention to the unsatisfactory condition and position of these buildings. It would be a great boon to the town if they were replaced by a public abattoir situated in a more accessible and less crowded part of the Borough.

Dust and Refuse Destructor.—I think serious attention ought also to be given to this question. The nuisance arising from the huge accumulations of refuse on the outskirts of the town is becoming serious, and the only satisfactory manner of dealing with it, is by the erection of a destructor. The volumes of smoke that drive towards and over the houses in the town would be done away with, and also the nuisance caused by the myriads of flies and other insects that are bred and developed in those refuse heaps, and of which many complaints were made this year.

Appended are the Meteorological Observations for the year.

I beg also to enclose the Reports of the Sanitary and Building Inspector.

I remain, Gentlemen,

Your obedient Servant,

M. G. YUNGE-BATEMAN,

M.R.C.S., L.S.A., D.P.H. (Camb.)

Medical Officer of Health.

To The Mayor,

and Town Council of Folkestone.

FOLKESTONE METEOROLOGICAL CHART, 1897.

MONTH	MEAN	MAX. / MIN. / ABSOLUTE.	MEAN MAX.	MEAN MIN.	MEAN DAILY RANGE	SUNSHINE. <i>Per Jordan's Recorder</i> hrs. min.	RAIN FALL.	Relative Humidity.
JANUARY	35°. ...	50°.3 / 21°.7	40°. ...	30°. ...	10°. ...	46 40	2.37	91
FEBRUARY	42°. ...	58°.6 / 30°.8	46°.4 ...	37°.7 ...	8°.7 ...	71 45	2.39	92
MARCH	44°.8 ...	58°. / 31°. ...	50°.2 ...	39°.4 ...	10°.8 ...	155 0	3.45	86
APRIL	45°.8 ...	60°.7 / 33°.6	50°.8 ...	40°.9 ...	9°.9 ...	199 35	2.46	86
MAY	50°.6 ...	67°.2 / 35°. ...	57°.5 ...	43°.8 ...	13°.7 ...	269 55	.75	84
JUNE	59°.3 ...	77°. / 42°.2	66°.2 ...	52°.5 ...	13°.7 ...	205 15	1.72	85
JULY	62°.7 ...	77°.4 / 49°. ...	69°.7 ...	55°.8 ...	13°.9 ...	254 25	.67	75
AUGUST	62°.8 ...	79°.1 / 50°.4	69°. ...	56°.6 ...	12°.4 ...	235 5	3.5	77
SEPTEMBER	56°.4 ...	66°.2 / 40°.8	62°. ...	50°.9 ...	11°.1 ...	146 55	2.45	81
OCTOBER	52°.8 ...	66°.5 / 38°.2	58°. ...	47°.7 ...	10°.3 ...	178 25	.20	83
NOVEMBER	47°.2 ...	59°.2 / 32°.4	52°. ...	42°.5 ...	9°.5 ...	62 0	1.72	92
DECEMBER	42°.5 ...	53°.7 / 31°.4	47°.1 ...	37°.9 ...	9°.2 ...	68 0	2.86	98

Mean Temperature for year 50°.1

Mean daily range, 11°.1

Mean Relative Humidity, 85

Total Rainfall, 24.54 inches

Mean Daily Rainfall, .06 inches

Total Sunshine, 1893 hours 30 minutes

Mean daily Sunshine, 5 hours 11 minutes

Sanitary and Building Inspector's Office,
Folkestone,

January 14th, 1898.

Sanitary Inspector's Annual Report.

Gentlemen,

I beg to submit my 8th Annual Report for the year ending December 31st, 1897, showing the work carried out by me in maintaining the district in good Sanitary condition, by the prompt abatement of Nuisances, and the periodical and systematic Inspection of the Slaughter-houses, Cowsheds, Dairies, Common Lodging-houses, and Workshops, so as to ensure compliance with the various Acts and Bye-laws governing them.

During the year, I have inspected 943 houses to ascertain the existence of Nuisances and Sanitary defects and have investigated 187 complaints of Nuisances.

In addition to the above, a large amount of Sanitary improvement has been effected by letters to Owners and Agents calling their attention to the state of their premises, which resulted in the same being put into Sanitary repair.

In 25 cases it was necessary to serve final Notices threatening proceedings, and I am pleased to state that these were complied with, without any Magisterial proceedings being necessary.

The drains of 243 houses have been tested by the smoke-test and defects found in 82 of them.

The following is a list of Nuisances abated and Sanitary defects remedied.

- 43 Drains relaid with water-tight joints and embedded in Cement Concrete.
- 14 Drains provided with interceptor traps.
- 19 Drains provided with proper ventilator at head of drain.
- 8 Foul and defective Pan w.c's. and D traps removed.
- 21 Soilpipes, ventilated by downspouts, provided with 4in. ventilating pipes.
- 13 Foul Long-hopper w.c's. removed and wash-down w.c's. fixed.
- 52 W.c's. provided with flushing cisterns and water supply.
- 28 Sink waste pipes trapped.
- 35 Back yards, passages, and wash-house floors repaired or relaid.
- 77 Blocked drains cleared.
- 18 Defective brick-drains reconstructed with glazed Sanitary pipes and proper joints.
- 11 Defective bell-traps removed and syphon traps substituted.
- 15 Separate water supplies provided, where the drinking was found to be drawn from the same cistern as supplied w.c's.

- 8 Bath and lavatory waste pipes trapped.
- 42 Defective roofs repaired, which caused dampness to houses.
- 23 Houses provided with proper guttering and down-spouts.
- 13 Nuisances, from keeping fowls and animals in dirty condition abated.
- 18 Accumulations of refuse removed.
- 15 Drinking water cisterns provided with proper covers.
- 12 Storage tanks provided to houses in intermittent area.
- 14 Dirty houses cleansed on notice.
- 5 Cases of overcrowding abated.
- 84 Houses provided with proper dustbins.

The various Public Elementary Schools have been periodically inspected to ensure cleanliness of the latrines and urinals. In only one instance was it necessary to complain of neglect in this respect.

Sanitary Certification of Houses.

During the past year, 148 Sanitary Certificates have been granted to houses and hotels. 762 Certificates have been granted since the inauguration of this system which continues to be much appreciated and leads to a large amount of Sanitary improvement.

Port Sanitary Authority.

15 Foreign vessels and 128 Coast-wise vessels have been inspected. It was found necessary, in one instance, to order the cleansing of the water-tanks and in two cases the cleansing of the Forecastsles. No cases of infectious disease have been introduced into the Borough, during the past year by shipping.

Housing of the Working Classes Act.

During the past year 3 houses have been reported to the Authority as being unfit for human habitation. One house on the Bayle has been rendered fit for habitation, 2 houses, (George Lane Cottages) have been closed on notice, and 3 houses in Castle's Yard, previously closed, have been demolished.

Water Supply.

Three samples of well water have been submitted to the Borough Analyst, for Analysis, during the past year. 2 of these were found to be polluted and the wells closed. 2 samples of the Bull Dog Spring water and 2 of the Town Dyke, at its point of delivery, have been Analysed and reported to be a Suspicious Water. A sample taken, satisfactory. 2 samples, of the Water Works Company's Water, were submitted for Analysis, that, taken from the Reservoir was satisfactory, but that taken from the tap of 41, Black Bull Road was reported to be contaminated with vegetable organic matter. The quantity supplied to the Town, during the past year, has been more satisfactory than during the previous 2 years, due no doubt, to the abnormal rainfall of 1896 being 4.75 inches, above the average for the past 20 years.

Factory and Workshops Act.

There are 35 Non-textile Factories and 40 Workshops in the Borough, these have been periodically inspected and found to be kept in a clean condition. No cases of overcrowding have occurred, each workroom having been measured add the number of persons allowed to work therein, reduced, so as to allow 250 cube feet of space per person.

Slaughter Houses.

The seven slaughter houses in the Borough have been regularly inspected, and the Bye-laws reasonably observed

but again I must call attention to the need of more modern Bye-laws for the better sanitation and regulation of the Slaughter-houses.

Common Lodging Houses.

There are five Common Lodging Houses in the Borough, 1 has been closed and 1 added to the Register, these have been regularly inspected to ensure proper cleanliness and the periodical whitewashing of walls and ceilings. It is satisfactory to note that no case of infectious disease has occurred in these houses, during the past year.

Milkshops, Dairies and Cowsheds.

Periodical inspections have been made, of the Milkshops, Dairies and Cowsheds, in the Borough so as to ensure cleanliness and proper Sanitation. Sanitary defects were found to exist at the Broadmead Manor Dairy, but were promptly remedied on Notice being served. As I have before pointed out, the greater portion of the milk consumed in the Borough is supplied from the outside districts, and we have, for the second year in succession, had small epidemics of Typhoid, directly caused by outside milk supply, which shows the necessity of the Rural Authorities keeping a strict supervision of the Cowsheds in their districts.

Food and Drugs.

No seizures of unsound food have been made during the past year. 16 samples of milk, 5 of butter, 2 of sweets, and 1 of lard have been submitted to the Borough Analyst for Analysis. All were genuine with the exception of 2 samples of milk, 1 of which was 27% deficient in fat. Proceedings were taken against the Vendor which resulted in a conviction, he being fined £3 16s. 6d., including costs. The other adulterated sample contained 11% of added water. In this case the prosecution failed, as I was unable to produce, before the bench, the 3rd portion of the sample, the bottle having burst by lactic fermentation.

Infectious Disease.

During the past year 125 patients have been treated in the Sanatorium. Consisting of 79 cases of Diphtheria, 25 of Scarlet Fever, 10 of Typhoid Fever, and 7 cases of Suspicious Diphtheria, 3 Suspicious Scarlet Fever, and 1 Suspicious Typhoid Fever.

There were 4 fatal cases of Diphtheria.

Considerable amount of Disinfection has been carried out during the past year, as the rooms, in 120 of the infected houses, were fumigated. In all cases, where the Medical Officer deemed it necessary, the bedding, carpets &c., were removed to the Sanatorium, for disinfection in the apparatus. In concluding this report I must urge upon the Authority the necessity of at once providing a Refuse Destructor, as during the past years many complaints have been received of offensive smells and smoke arising from the present methods of disposing of the refuse. The Authority should also instruct the Highways Committee to see that all house drains connected to the sewers should join the same obliquely in the direction of the flow. As the present method of tapping the sewer, and connecting the drain at right angles leads to deposits in those sewers which have few houses discharging into them,

I am your obedient servant,

JOHN PEARSON,

Sanitary Inspector.